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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/693,476	10/24/2003	Ronald P. Wangner	2003L006	2547

7590 11/16/2004

Infineum USA L.P.
Law Department
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EXAMINER	
HERTZOG, ARDITH E	

ART UNIT	PAPER NUMBER
1754	

DATE MAILED: 11/16/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)
	10/693,476	WANGNER ET AL.
	Examiner	Art Unit
	Ardith E. Hertzog	1754

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address* --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *10/24/03 & 8/30/04*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-6* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-6* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☒ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *10/24/03*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☒ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Information Disclosure Statement

1. Receipt is acknowledged of the information disclosure statement (IDS) filed October 24, 2003. As the submission is in compliance with the provisions of 37 CFR § 1.97, the IDS has been considered, in accordance with the enclosed PTO-1449.

Response to Pre-Exam Informalities

2. Receipt is acknowledged of applicant's executed declaration filed August 30, 2004, in response to the Pre-Exam Formalities Notice (Formalities Letter) mailed August 11, 2004. Claims 1-6 are pending. **However**:

Oath/Declaration

3. As noted in the enclosed Notice of Informal Application dated September 16, 2004, the declaration is defective because:

> It does not identify the **city** and either state or foreign country of residence of **each** inventor. The residence information may be provided on either on an application data sheet **or** supplemental oath or declaration.

Note that for the third named inventor, a street address has been erroneously listed as **city** of residence. **Thus**, a new declaration (or oath) in compliance with 37 CFR § 1.67(a), **or** application data sheet (see 37 CFR § 1.76 and MPEP § 601.05), identifying this application by application number and filing date is required. See MPEP §§ 602.01 and 602.02.

Minor Informalities – Abstract/Disclosure

4. Applicant is reminded of the proper language and format for an abstract of the disclosure:

> The language should be clear and concise and should not repeat information given in the title. **It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.** (MPEP § 608.01(b), emphasis added)

5. The abstract of the disclosure is objected to, because, per the bolded citation above, it begins with "There is disclosed ". Appropriate correction is required.

6. The disclosure is objected to, because at page 3, line 5, it appears that "ammoniacal ammonium molybdate solution" should be revised as "aqueous ammoniacal molybdate solution", for consistency with the rest of the disclosure. Appropriate correction is required.

Claim Rejections - 35 U.S.C. § 112

7. The following is a quotation of the second paragraph of 35 U.S.C. § 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

8. Claims 1-6 are rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Said claims are considered vague, indefinite, and/or confusing, due to the phrase "at elevated temperatures up to about 200°C" in step (b) of claim 1 (upon which claims 2-6 depend). It is respectfully submitted that use of the relative term "elevated", **in concert with** the terminology "up to"—which "includes zero

as a lower limit[1] –renders the intended scope of the recited temperature range unclear, given that one of ordinary skill in the art would not typically construe "elevated" as including zero. Hence, it is respectfully submitted that the lower limit of this "elevated" temperature range cannot be accurately determined, especially as the specification does not appear to provide a standard for ascertaining the requisite degree of "elevation" (beyond the preferred numerical lower limit of 175°C, as given at p. 4, line 2). Appropriate correction is required.

9. Claim 4 is further rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Said claim is considered further vague, indefinite, and/or confusing, due to an antecedent basis problem. Specifically, since **two** pressures are recited in step (a) of claim 1 (i.e., "superatmospheric pressure" and "an elevated pressure"), it is not clear as to which pressure claim 4 refers—again, the "superatmospheric pressure", the "elevated pressure", or both (given that the specification gives basically the same numerical psig range for both such pressures (see p. 2, line 2, and p. 3, lines 11-12)). Appropriate correction is required.

Claim Rejections - 35 U.S.C. §§ 102 & 103

10. The following is a quotation of the appropriate paragraphs of 35 U.S.C. § 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in

[1] See *In re Mochel*, 470 F.2d 638, 176 USPQ 194 (CCPA 1974), as discussed in MPEP § 2173.05(c) II.

> public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

11. The following is a quotation of 35 U.S.C. § 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

12. Claim 6 is rejected under 35 U.S.C. § 102(b) as anticipated by **or, in the alternative**, under 35 U.S.C. § 103(a) as obvious over Chemical Abstract accession no. 114:113911, "Molybdenum-sulfur clusters", published 1990 (hereinafter "CA 114:113911). CA 114:113911 teaches an ammonium polythiomolybdate of structural formula $(NH_4)_2[Mo_3S(S_2)_6].nH_2O$, wherein n = 0-2, thus teaching the **same** structural formula recited in applicant's independent claim 1 (upon which instant claim 6 depends) (see abstract, being sure to note RN (registry number) 79950-09-7). **Accordingly**, CA 114:113911 is considered to anticipate instant **product-by-process** claim 6, **or, in the alternative**, considered to have **at least** rendered products falling within the scope thereof obvious to one of ordinary skill, at the time of applicant's invention, since, again, ammonium polythiomolybdate of the **same** structural formula is **clearly** taught by this reference. It **is** appreciated that instant claim 6 recites that applicant's ammonium polythiomolybdate is "prepared by the process of claim 1"; it is **further** appreciated that CA 114:113911 does not disclose the same preparation process steps recited in instant claim 1. **However**, it is respectfully submitted that such process limitations need not be afforded any patentable weight, in this, again, **product-by-process** claim, **absent**

evidence that applicant's product is *materially* different from that **clearly** taught by CA 114:113911. Note MPEP § 2113, which states, in relevant part:

> PRODUCT-BY-PROCESS CLAIMS ARE NOT LIMITED TO THE MANIPULATIONS OF THE RECITED STEPS, ONLY THE STRUCTURE IMPLIED BY THE STEPS
> "[E]ven though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. **If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process**." *In re Thorpe*, 777 F.2d 695, 698, 227 USPQ 964, 966 (Fed. Cir. 1985) (citations omitted)... (emphasis added)

and

> ONCE A PRODUCT APPEARING TO BE SUBSTANTIALLY IDENTICAL IS FOUND AND A 35 U.S.C. § 102/103 REJECTION MADE, THE BURDEN SHIFTS TO THE APPLICANT TO SHOW AN UNOBVIOUS DIFFERENCE
> "The Patent Office bears a lesser burden of proof in making out a case of *prima facie* obviousness for product-by-process claims because of their peculiar nature" than when a product is claimed in the conventional fashion. *In re Fessmann*, 489 F.2d 742, 744, 180 USPQ 324, 326 (CCPA 1974). **Once the examiner provides a rationale tending to show that the claimed product appears to be the same or similar to that of the prior art, although produced by a different process, the burden shifts to applicant to come forward with evidence establishing an unobvious difference between the claimed product and the prior art product**. *In re Marosi*, 710 F.2d 798, 802, 218 USPQ 289, 292 (Fed. Cir. 1983)... (emphasis added)

and, finally,

> THE USE OF 35 U.S.C. § 102/103 REJECTIONS FOR PRODUCT-BY-PROCESS CLAIMS HAS BEEN APPROVED BY THE COURTS
> "[T]he lack of physical description in a product-by-process claim makes determination of the patentability of the claim more difficult, since in spite of the fact that the claim may recite only process limitations, it is the patentability of the product claimed and not of the recited process steps which must be established. We are therefore of the opinion that **when the prior art discloses a product which reasonably appears to be either**

identical with or only slightly different than a product claimed in a product-by-process claim, a rejection based alternatively on either section 102 or section 103 of the statute is eminently fair and acceptable. As a practical matter, the Patent Office is not equipped to manufacture products by the myriad of processes put before it and then obtain prior art products and make physical comparisons therewith." *In re Brown*, 459 F.2d 531, 535, 173 USPQ 685, 688 (CCPA 1972). (emphasis added)

Allowable Subject Matter

13. Claims 1-5 would be allowable ***if*** **rewritten or amended to overcome the rejection(s) under 35 U.S.C. § 112, second paragraph, set forth in paragraphs 8. - 9. above.**

14. The following is a statement of reasons for the indication of allowable subject matter: The closest prior art of record is considered to be Reilly et al. (US 4,604,278), cited by applicant, and CA 114:113911, applied *supra*. With respect to Reilly et al., this patent teaches processes for producing ammonium **tetrathiomolybdate**, an ammonium polythiomolybdate **outside** the scope of the structural formula recited in applicant's independent claim 1, yet wherein steps which read upon those recited as instant steps (a) and (c)-(f) are disclosed. **However**, with the product being, again, ammonium **tetrathiomolybdate**, there is no teaching nor suggestion in Reilly et al. to have modified the disclosed processes ***via instant step (b)*****, in order to convert the ammonium *tetrathiomolybdate* to applicant's *specific* ammonium polythiomolybdate,** $(NH_4)_2Mo_3S_{13}.nH_2O$. With respect to CA 114:113911, as discussed above, this reference **does** teach the same structural formula recited in applicant's independent claim 1 but **fails** to disclose the same preparation process **steps** recited therein. **In**

addition, the prior art of record, whether considered alone or in combination, provides no teaching nor suggestion to have utilized reaction/preparation steps, such as those taught by Reilly et al., to make compounds, such as those taught by CA 114:113911. **Therefore**, claims 1-5, ***if* amended in accordance with paragraph 13. above**, would be considered allowable over the prior art of record.

Conclusion

15. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. These references are considered cumulative to or less material than those discussed above. Note that Kurtak et al. (US 3,876,755), cited on the enclosed PTO-892, is a continuation-in-part of Kurtak et al. (US 3,764,649), cited by applicant, while the additional US references on the PTO-892 were cited during prosecution of Kurtak et al. (US 3,764,649) and/or Reilly et al. (US 4,604,278).

16. Any inquiry concerning this communication should be directed to Ardith E. Hertzog at telephone number (571) 272-1347. The examiner can normally be reached on Monday through Friday (from about 8:00 a.m. - 4:00 p.m.).

17. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stanley S. Silverman, can be reached at (571) 272-1358. The fax phone number for the organization where this application is assigned is 703-872-9306.

18. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. For any questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

AEH
November 12, 2004

STEVEN BOS
PRIMARY EXAMINER
GROUP 1100

UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
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APPLICATION NUMBER	FILING OR 371 (c) DATE	FIRST NAMED APPLICANT	ATTORNEY DOCKET NUMBER
10/693,476	10/24/2003	Ronald P. Wangner	2003L006

CONFIRMATION NO. 2547

Infineum USA L.P.
Law Department
1900 East Linden Avenue
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Linden, NJ 07036-0710

FORMALITIES LETTER

OC000000013819033

Date ~~Mailed~~: 09/16/2004

NOTICE OF INFORMAL APPLICATION

This application is considered to be informal since it does not comply with the regulations for the reason(s) indicated below. The period within to correct the informalities noted below and avoid abandonment is set in the accompanying Office action.

Items Required To Avoid Processing Delays:

The item(s) indicated below are also required and should be submitted with any reply to this notice to avoid further processing delays.

- A new oath or declaration, identifying this application number is required. The oath or declaration does not comply with 37 CFR 1.63 in that it:
- does not identify the residence (e.g., city and either state or foreign country) of each inventor.

Replies should be mailed to: Mail Stop Missing Parts
Commissioner for Patents
P.O. Box 1450
Alexandria VA 22313-1450

A copy of this notice MUST be returned with the reply.

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